

ELECTRO-FLUIDIC SYSTEMS

RODUCT DATA SHEET

LO-LOHM LATCHING 3-PORT HIGH DENSITY INTER-FACE (HDI) SOLENOID VALVE

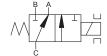
The Lee Company continues to expand its High Density Interface (HDI) solenoid valve platform by combining the high flow capabilities of the Lo-Lohm design with the power savings of our Latching design, all within a compact footprint. After supplying only a momentary (10 ms minimum) voltage pulse, this magnetically-latched solenoid valve will hold its flow state until a follow-on momentary voltage pulse (with reverse polarity) is applied to switch its flow direction. Aside from the momentary pulse, no power is consumed while maintaining each flow state.

This ultra-low heat and low power 3-port valve is optimized for compact, battery powered instruments such as portable respiratory therapy devices, molecular diagnostic instruments, environmental gas samplers and other OEM flow switching devices where high flow capacity, low power and small size are critical.

The Lee Company offers an array of standard manifolds for testing as well as custom designed manifold configurations for production. Performance parameters can be optimized for a specific application. Contact your Lee Sales Engineer for additional technical assistance and application information.

SWITCHING TABLE					
VALVE STATE	TERMINAL	POLARITY			
CLOSED -	1	+			
INLET OPEN	2	-			
VALVE STATE OPEN ← □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	1	-			
INLET TCLOSED	2	+			

The valve will switch to, and remain in the state indicated when a 10 to 30 ms electrical pulse is applied with the rated voltage and polarity.



LATCHING SOLENOID VALVE SYMBOL

- Magnetically Latched
- Ultra Low Power Consumption (as low as 28 mJ/switch)
- High Flow Capacity
- Reliable Bi-Stable Switching
- Compact Size
- Operating Pressure Range: Vac 45 psig (0 - 15 psid)
- Light Weight: Less than 4.5 grams
- Leakage: Less than 50 SµLPM at 5 psid (air) throughout rated cycle life



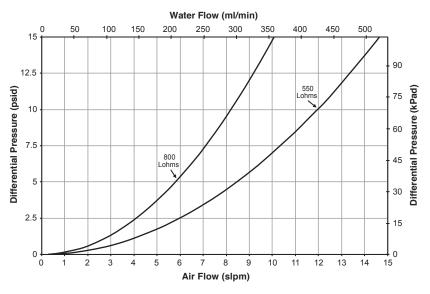
- Cycle Life: 10 million cycles minimum
- Wetted Materials: Housing (PBT), Plunger Head (PPS), Armature/Stop (FeCr Alloy), Spring (316 SS), Seal (Silicone), Epoxy, O-rings on Plug-in Style Valves (FKM)

STYLE	PART NUMBER	VOLTAGE ¹ (Vdc)	LOHM RATE ² ON AIR AT 70°F (21°C)	POWER CONSUMPTION ³ AT 70°F (21°C) (mJ/switch)
Plug-In	LHLA0511355D	5	550 Lohms (14.6 SLPM at 15 psid; Ref. Cv = 0.036)	28
	LHLA1211355D	12		35
Face Mount	LHLA0521380D	5	800 Lohms (10 SLPM at 15 psid; Ref. Cv = 0.025)	28
	LHLA1221380D	12		35
Ported	LHLA0531380D	5		28
	LHLA1231380D	12		35

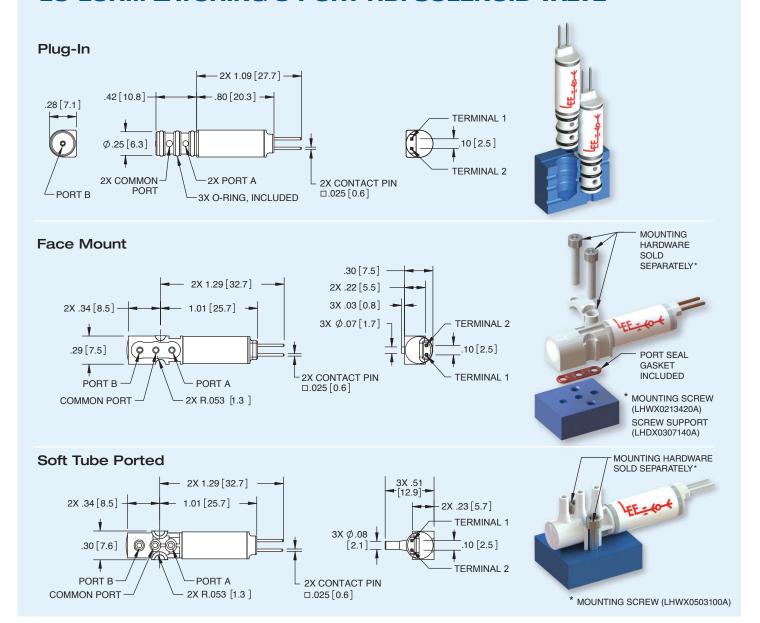
NOTES: (1) Other voltages available upon request

- (2) The Lohm is a measure of flow resistance. Additional information can be found at www.theleeco.com
- (3) Power consumption is calculated based on a 10 ms electrical pulse.

FLOW PERFORMANCE CHARACTERISTICS

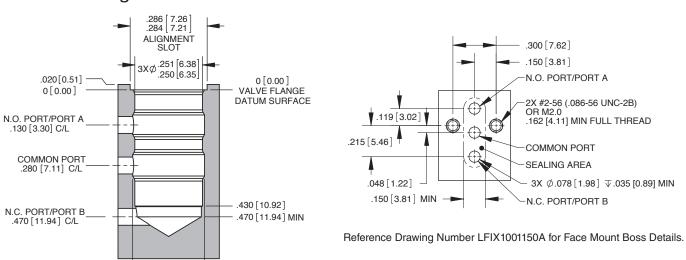


LO-LOHM LATCHING 3-PORT HDI SOLENOID VALVE



Plug-In Boss Detail

Face Mount Boss Detail



Reference Drawing Number LCFX0300100B for Plug-In Boss Details.

Valve Boss may be created using Lee Co. cutting tool Part No. TTTA0000180B

2X Ø.266 [6.76]

NOTE: Boss detail drawings not to scale. All dimensions are in inches [mm].